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ABSTRACT

The research reported here addresses the impact of school district consolidation on constituent support of educational expenditures. It is hypothesized that, regardless of the success of consolidation in satisfying its stated objective of providing a qualitatively improved education more efficiently, the loss of local control will, under certain circumstances, lead to a decrease in support for educational services. This is in large part the case because short-term losses will be perceived to outweigh long-range goals. In order to investigate the impact of school district consolidation on the support given for educational expenditures, two analytic strategies are adopted: (1) a cross-sectional analysis of negative voting in school budget elections for unified and nonunified school districts of Oregon during 1971-72, and (2) a quasi-experimental time series analysis of negative voting in one Oregon school district during the years 1957-72. If a negative impact on school budget elections is to be avoided, forced consolidation should either be abandoned or combined with legislation to have state government assume responsibility for the funding of education. However, forced consolidation leads to more than the lamentable passing of an anachronistic administrative unit; it represents a basic alteration in a form of self-government. (Author/IRT)

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A PARTIAL TEST OF A MODEL OF CITIZEN RESPONSE TO SCHOOL DISTRICT CONSOLIDATION

by

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School district consolidation, unification, and annexation have become prominent features of American education since the 1930's. As a result, the number of school districts in the country is rapidly decreasing. In Oregon alone, the number of school districts has decreased from 2,234 in 1931 to 350 in 1970.[1] Nationally, this movement has been just as dramatic: in 1931 there were 127,531 school districts--in 1970 there were but 17,995.[2] Since the 108,579 school districts which existed in 1942 constituted, at that time, two-thirds of all units of government in this country, the wholesale consolidation of these smaller units into larger ones constitutes a major political phenomenon.[3]

According to advocates of school district unification, this policy is intended to satisfy two principal objectives. First, it is argued that, based upon economies of scale, a certain minimum enrollment is required for the efficient operation of a school district.[4] Although authors disagree about what the specific minimum should be, all seem to concur that the small district (perhaps fewer than 2000 students) is too small to be run efficiently. Second, unification has been proposed as a means to increase the tax base of a district.[5] From the point of view of the advocates of school district consolidation, both of these objectives are directed toward the improvement of the ratio of cost to quality of education which is to be offered clients within a district.

While the goals of efficiency and improved quality are undoubtedly laudable, educational consolidation is a policy which, while attempting to maximize certain values, can only be pursued at the expense of others. The principal value to be sacrificed in this tradeoff is that of "local control." The research reported here addresses the impact of school district consolidation upon constituent support of educational expenditures. It is hypothesized that, regardless of the success of consolidation in satisfying its stated objective of providing a qualitatively improved education more efficiently, the loss of local control will,

under certain circumstances, lead to a decrease in support for educational services. This is in large part the case because short term losses will be perceived to outweigh long range gains.

Of the research on school district consolidation which has occurred to date, most of it can be classified as having dealt with economies of scale. For instance, St. Louis and McNamara have dealt with optimal school size in Oregon when attempting to minimize expenditures per pupil.[6] Others, like Martin, Zimmer and Hawley, have concerned themselves primarily with determining sources of support or opposition to consolidation policies.[7] These latter researchers have dealt with unification as a dependent variable and have sought to discover those independent variables which explain the variance in support for school unification. The research reported here departs from this tradition in that unification is not dealt with as a dependent variable but rather as an independent variable which might explain the variance in level of support given by constituents for budgets to support the provision of this basic public service--education.

One way of viewing probable citizen reaction to educational consolidation is through the use of Hirschman's exit, voice, and loyalty paradigm. Hirschman states that, when faced with a lowering quality in a firm's or organization's product, consumers may respond in one of the following three ways:

(1) They may remain loyal to the firm and do nothing;

(2) They may be sufficiently upset with the decline in a product to exit and purchase it from a different firm; or

(3) They may use voice and attempt to make the firm aware of their dissatisfaction in order to influence the firm to bring the product up to its previous level of quality.[8]

Clearly, constituents of a school district which either will be or has been consolidated with one or more other districts are posed with these three alternatives. First, if the consolidation is to be voted upon, a constituent may either

refrain from voting or vote for it.[9] If the consolidation has already been accomplished, the constituent may, again, refrain from voting or vote in favor of budget measures. Citizens who adopt this option may resent loss of local control or higher taxes which may be associated with consolidation but value what they perceive to be additional services. Second, citizens can exit from the district. If the source of perceived decline in quality is either increased cost or decreased quality of education, this is a reasonable option. However, if the decline in quality is a function of perceived loss of local control, it is quite probable that, given the massive effort toward educational consolidation in this country, exit to another community outside of the present district will not produce a concomitant rise in quality. Third, citizens may use voice and vote against proposals for consolidation and, if consolidation is successful, vote against school budget proposals. For those who oppose the consolidation of a school district and wish to behave overtly, negative voting is probably the most visible and inexpensive option available.

The decision rules applicable to school district consolidation pose a unique problem to the democratic theorist. Although public schools began as local institutions, the ultimate responsibility for them resides in state legislatures. As Garber and Edwards note,

> The state is unrestricted in its choice of method of establishing school districts. It may establish them by direct legislative enactment, it may delegate its authority to establish districts to some administrative board or official, or it may make the creation of a district contingent upon the consent of the inhabitants affected. Since education is essentially a matter of state concern, school districts may be created with or without the consent of those who live in them.[10]

The prerogative of the state in this area has led proponents of school district consolidation to seek at this level what they frequently are unable to achieve at the local level. The Committee for Economic Development makes this intention explicit when it states, "All experience shows that effective consolidation cannot and will not be achieved by local units themselves.... Achievement of

effective school district reorganization requires mandatory action by the state government."[11] In other words, the values to be maximized through consolidation justify the contradiction of constituent preference.

Although state action may negate the effect of local, perhaps parochial, attitudes towards school district consolidation, such action leads to the creation of an anomolous situation. School district consolidation is urged through state action yet the newly consolidated district must refer its budget to the very voters who were thought to oppose consolidation. In the fifty states and the District of Columbia, the average state contribution to the funding of education is 41.1%. The contradiction implicit in state pre-emption of school district consolidation is exacerbated in Oregon by the fact that the state contribution to the support of education is only 19.6%--well below the national average. In Oregon in 1971, 74.5% of the funding of education came from local sources while the national average was but 52%.[12]

At least three scenarios can be developed regarding the impact of school district consolidation upon support given by constituents for school budgets. The first would include those instances in which consolidation is undertaken voluntarily by the local districts and is supported by a majority of constituents in all districts to be merged. This is clearly the ideal positive model and in such a circumstance it would be expected that the consolidation would have little if any impact upon the support of school budgets. The second, the ideal negative model, would entail state action to force consolidation upon small districts, all of which oppose such a move. The expectation would be that significant opposition to school budgets would appear in this case. The third, which rests on a continuum between the two ideal types, would occur when some small districts vote for and some against consolidation, yet it is still adopted. This is perhaps the most interesting model because it should give rise to diversity in support and opposition to school budgets by geographically

distinct portions of the constituency. That is, one would expect those prior districts that supported consolidation to support budget requests and those prior districts which opposed consolidation to oppose budget requests.

In order to investigate the impact of school district consolidation upon the support given for educational expenditures, two analytic strategies are adopted: (1) a cross-sectional analysis of negative voting in school budget elections for unified and non-unified school districts of Oregon during 1971-1972, and (2) a quasi-experimental time series analysis of negative voting in one Oregon school district during the years 1957-1972. The first, the cross-sectional design, permits the investigator to ask the general question of whether unified districts appear to have more difficulty passing school budgets than non-unified districts. Utilizing the per cent voting against a school budget in the first election as the measure of voter opposition, the correlation (eta) between district type (unified or non-unified) and per cent negative voting is .3122--a modest correlation but in the predicted direction.

To be unambiguously interpreted, the cross-sectional analysis should be controlled for two potential sources of error. The first control should be for the circumstances surrounding the creation of each unified district--that is, control for positive, negative and mixed models of consolidation. Second, control should be made for length of time between consolidation and observation since it is probable that the hostility expressed by constituents who resent the loss of control will diminish over time. Given the vagaries of school district record keeping, the first suggested control is an expensive one and beyond the scope of this research. Without control for the first source of error, little utility is placed upon control for the second. Therefore, the cross-sectional investigation of the association between district type and negative voting is presented as illustrative, not definitive information.

The second analytic strategy adopted is the quasi-experimental time-series

design. As Campbell notes,

> The essence of this experimental design is the presence of a periodic measurement process on some group or individual and the introduction of an experimental change into this time-series of measurements, the results of which are indicated by a discontinuity in the measurements recorded in the time-series.[13]

Accordingly, the percentage negative voting on school budget measures is considered the periodic measurement, the consolidated unit the group, and consolidation the experimental change. This approach is to be preferred to the cross-sectional design as it allows one to view consolidation and citizen reaction to it as a dynamic process.

As noted earlier, the cross-sectional analysis is based upon data from all Oregon school districts for the year 1971-1972. Data for use in the quasi-experimental time-series design have been collected from the South Lane School District for the years 1957-1972.[14] The South Lane School District has been chosen for inclusion for several reasons: (1) it rests somewhere on the continuum between the positive and negative ideal types of consolidation specified above; (2) it is moderately sized and, given the fact that, in 1970, 80% of the school districts in the nation had enrollments of fewer than 2500 students,[15] it is probably more representative than very large unified districts; and (3) researchers from CASEA have developed a working relationship with this district which expedited access to district records. Although the use of but one district limits the possible generalizability of findings, it is considered sufficient for this exploratory research.

The South Lane School District was created in 1961 through the unification of eleven school districts. Of the eleven original districts, five voted in opposition to the unification. The over-all vote, however, was in favor of unification--in large part due to the support the issue received in Cottage Grove, the largest population center in the new district. Because five of the districts had voted against the measure, the interpretation of the outcome was

left to the Attorney General of Oregon. Then Attorney General Robert Thornton decided that, "In our opinion a common school district which may be involved in the proposed formation of a new administrative school district does not have the recourse as a 'rejecting school district'...."[16] The opinion of the Attorney General was never appealed in court and the South Lane School District was created.

Although eleven school districts existed prior to consolidation, these eleven districts have had to be aggregated to four units for the time-series analysis. This is the maximum number of units which can be preserved due to fluctuating precinct boundaries during the period 1961-1972. Obviously, it would be preferred if the voting of all eleven units could be identified through the time-series but the aggregation which has taken place maintains the essential character of support for educational expenditure expressed by constituents of the origianl districts. One unit comprises voters from Cottage Grove and the immediately surrounding area; three units represent voters from rural areas of the South Lane School District.

The four units of the South Lane School District identified for study are referred to as Cottage Grove, Mt. View, Latham, and Delight Valley. Of these four areas, greatest support for consolidation was found in Cottage Grove (14% opposed); greatest opposition to consolidation was found in Delight Valley (58% opposed). While demonstrating a great deal of opposition to consolidation, Mt. View (46% opposed) and Latham (42% opposed) were not as extreme in their voting on consolidation as was Delight Valley. In terms of the mixed model of consolidation outlined above, one expects that consolidation will have little or no effect upon the level of negative voting on school budget measures by residents of Cottage Grove. In contrast, the same model leads to the expectation that a substantial change in negative voting will be noted in Delight Valley, Latham, and Mt. View. Because of its strong opposition to consolidation, this change should be most apparent in Delight Valley.

For the time-series analysis, the three tests of Walker-Lev are referenced.[17] Each of the tests of Walker-Lev is based upon analysis of covariance and levels of significance are evaluated on the basis of F statistics. The first of the Walker-Lev statistics is a test of the hypothesis of common slope for pre- and post-change periods. The second is a test of the hypothesis that the pre- and post-change slopes are equal to zero when $\hat{B}_1$ is found to equal $\hat{B}_2$. The third is a test of the hypothesis that a single regression line fits both pre- and post-change periods.

Clearly, for this research the first and third tests of Walker-Lev are the most important. If the experimental intervention (consolidation) stimulates a new trend ($\hat{B}_1 \neq \hat{B}_2$) in negative voting, the first test of Walker-Lev is the most important. If, on the other hand, the experimental change alters the level of negative voting by an increment or constant ($a_1 \neq a_2$), the third test of Walker-Lev is the most important.

When the tests of Walker-Lev are applied to the data (original) presented in Figure 1, significant F values for Cottage Grove and Delight Valley are found

INSERT FIGURE 1

on test one (testing the hypothesis of common slope for pre- and post-change periods). The F value reported in Table 1 for Delight Valley is consistent with

INSERT TABLE 1

theoretical expectation; the F value for Cottage Grove directly contradicts theoretical expectation. Whereas Delight Valley was the area expressing most opposition to consolidation and, hence, expected to demonstrate substantial change in support of budget measures in the post-change period, Cottage Grove strongly supported consolidation and was expected to demonstrate, at most, only negligible change in support of budget measures.

Although the first test of Walker-Lev indicates a significant difference in slope for pre- and post-change observations in Cottage Grove, the plot of actual

slopes presented in Figure 2 raises doubt about the substantive significance of that change. The apparent change in pre- and post-change slopes which is ob-

INSERT FIGURE 2

vious in Figure 2 for Delight Valley, Mt. View, and Latham is almost imperceptible for Cottage Grove. In fact, the difference between $\hat{B}_1$ and $\hat{B}_2$ for Cottage Grove is the smallest of any of those presented in Table 2. How, then, is it

INSERT TABLE 2

possible that such a highly significant F value could be reported for the first test of Walker-Lev in Cottage Grove?

The most obvious reason for this troubling result is the fact that the data for Cottage is nearly linear, with very small residuals. With very small residuals, the significance of even slight changes in slope between pre- and post-change periods is greater than an even greater change in slope for data with larger residuals. Consistent with this position, Mt. View, which shows the greatest change in slope but with comparatively large residuals (particularly in the pre-change period), has an insignificant F on the first test of Walker-Lev.

Moving to an analysis of the third test of Walker-Lev, one finds that the hypothesis that a single regression line explains both pre- and post-test values cannot be rejected for Cottage Grove. However, this hypothesis can be rejected for both Delight Valley and Mt. View. As was the case for the first test, the F value for the third test of Walker-Lev is not significant for Latham.

When evaluating the reported F statistics, one should bear in mind the comparative theoretical utility of the first and third test of Walker-Lev. Substantiation of the hypothesis that consolidation, as an experimental change, will have a significant impact upon the level of voter support for educational expenditures is found in high F values on both the first and third tests of Walker-Lev. However, in the absence of significant F's on <u>both</u> tests, the theoretical import of a significant F on either test is equal. That is, it is equally

important if one finds that the slopes of pre- and post-change periods are different or, in the case of equal slopes, that the intercepts are different.

Hence, the analysis reported above leads one to conclude that the experimental change, consolidation, has had an effect upon the level of voter support for educational funding in at least two of the four areas of the South Lane School District--Delight Valley and Mt. View. In Delight Valley, the experimental effect is expressed in both a change of slope and intercept for pre- and post-change periods. In Mt. View, the slopes of each period have not been found to be significantly different but there are clear intercept differences. In this latter case, the level of negative voting has been increased by a constant.

Until now, the problem of plausible rival hypotheses has not been addressed. In this regard, Campbell and Stanley state that the failure to control for history is the most important factor jeopardizing the internal validity of the time series design.[18] By converting the design to that of a multiple time series, this source of invalidity is removed. Such a conversion, however, requires one to specify an appropriate control group.

In order to control for district-specific history, it was decided to use one area of the South Lane School District as the control group rather than, for instance, another district matched on various relevant characteristics. Of the four areas identified in this research, Cottage Grove was chosen as the control group. At this point, it should be recalled that a major expectation of this research is that prior districts which supported consolidation will support budget requests and prior districts which opposed consolidation will oppose budget requests. By using the difference score between Cottage Grove and each of the other areas of the South Lane School District as the data for analysis, control is achieved for history and attention is focused upon the contrast in negative voting between an area of strong support for consolidation and areas of moderate to strong opposition to consolidation. The calculation of the

difference score (y_{ij}) is as follows:

$$y_{ij} = x_{ij} - c_j$$

where

x_{ij} = per cent negative vote of a unit (i) of the South Lane School District for a particular year (j).

c_j = negative vote of the control group (Cottage Grove) for a particular year (j).

The distributions of the difference scores for the years 1957 through 1972 are presented in Figure 1.

The values of F reported in Table 3 for the difference scores reveal findings somewhat at variance with those of the original data. The first major difference between the two analyses is the addition of Mt. View and Latham as areas

INSERT TABLE 3

demonstrating significantly different slopes for the pre- and post-change periods (test one). The data for Delight Valley continue to be significant on test one and test three; the data for Mt. View continue to be significant on test three. The second major difference, as an examination of the data in Figure 1 will show, is that the distributions of difference scores are considerably different in nature from those of the original data. Rather than a shift in the level of negative voting which is either relatively maintained or increased after consolidation, the difference scores evidence high initial negative voting which diminishes over time, indicating that the distinctiveness of the areas, with regards to negative voting, decreases over time.

Although there is some difference in the Walker-Lev statistics reported for original and difference scores, both data sets confirm the hypothesis that consolidation alters the pattern of negative voting in at least two areas (Delight Valley and Mt. View) and possibly a third (Latham). The apparent diminuition of distinctiveness in negative voting subsequent to consolidation, however, merits further investigation.

Returning to the distribution of original scores presented in Figure 1, the reason for the negative slope of votes in the post-change period is clear: the proportion of the electorate in Cottage Grove casting negative votes on budget measures has been constantly increasing since 1957. In contrast, voters in Latham, Mt. View, and Delight Valley demonstrate a dramatic increase in negative voting immediately following consolidation--a level of negative voting which has been relatively maintained since consolidation. With one unit increasing (Cottage Grove) and the others remaining somewhat constant, the difference between them is expected to diminish.

A plausible alternative hypothesis which might explain observed changes in voting behavior is, as Boss has argued, that negative voting "is a predictable and designed response of a democratic fiscal system to increases in the proposed supply of a public good to levels beyond the optimal preferred by a collectivity."[19] If one adopts this interpretation of the change in voting observed for Delight Valley, Mt. View, and Latham, then one must assume that, at the time of consolidation, the proposed increase in the supply of education exceeded the preferred optimal of residents of these three areas, and that this demand-supply discontinuity has been relatively stable since that time. While it is argued here that consolidation means more to residents of affected areas than the ratio of supply to demand, clearly one aspect of "loss of local control" is the inability to specify what that ratio should be. Hence, it is difficult to partial out the effects of demand and supply from other subjective perceptions of consolidation. The point to be emphasized is that consolidation has had an impact upon the support which some areas of the South Lane School District are willing to give to requests for educational expenditures. In contrast, the pattern of negative voting evident for Cottage Grove does seem to conform to the findings of Boss since no abrupt change in negative voting appears immediately following consolidation although negative voting does clearly increase over time.

It was noted earlier that, over time, it could be expected that the salience of the consolidation issue will diminish. That is, the hostility engendered in some areas of a school district as a result of consolidation can be expected to decline and, consequently, have less and less impact upon budget elections the further removed in time they are from consolidation. As this process occurs, voter calculation of supply and demand should become both more relevant and less confounded with the issue of consolidation.

If the salience of the issue of consolidation diminishes over time, being replaced by considerations of demand and supply, the difference scores should reflect this phenomenon. That is, extreme differences in voting should be resolved over time. Clearly, this is the pattern revealed by the distributions of difference scores in Figure 1.

Unfortunately, there is no theoretical basis upon which one might specify the point in time when a change in emphasis from the issue of consolidation to consideration of demand and supply should be expected to take place. An analysis of both original and difference scores in Figure 1 indicates that a conservative estimate would be between the years 1965 and 1966. For instance, in both Latham and Mt. View the lowest level of negative voting is achieved subsequent to consolidation in 1965. In Delight Valley, the negative votes in 1965 are very near a minimum for the post-change period. Hence, it is concluded that this period represents the closest approximation of "normalcy" during the period following consolidation.

To investigate the notion of the diminuition of consolidation salience, the distributions of per cent negative votes are broken into three discrete periods. These three periods are:

1. pre-consolidation: 1957 to 1960
2. post-consolidation (salient): 1961 to 1965
3. post-consolidation (non-salient): 1966 to 1972

When the tests of Walker-Lev are applied to these data, the slopes between pre- and post-change (salient) periods are once again found to be significantly different. As is apparent from the F values reported in Table 4, by breaking the

INSERT TABLE 4

post-change observations into two periods, the hypothesis that one regression line explains both pre- and post-change data cannot be rejected (test three). Very similar results are achieved from an analysis of post-change (salient) and post-change (non-salient) data, the major difference being that, as shown in Table 5, the hypothesis that a single regression line explains both salient and

INSERT TABLE 5

non-salient data can be rejected for Mt. View. Hence, it appears that support does exist for the idea that three discrete periods can be identified in the pattern of negative voting for these three areas of the South Lane School District. That the post-consolidation period can be separated into two parts is intuitively appealing; it makes little sense to expect that consolidation would remain forever the most salient issue in a voter's mind.

A strong note of caution must be sounded with regards to the issue of consolidation salience. Whereas consolidation took place at a specific time with sound theoretical reasons leading one to expect a change in voter behavior subsequent to this change, no such justification can be offered in defense of the decision to break the post-consolidation period into two parts between 1965 and 1966. One could argue, for instance, that 1968-1969 is the appropriate time period to break the data into two periods. To convincingly argue the issue of salience, one would need both additional districts and, ideally, interview data to support specific hypotheses of temporal duration.

The data reported here do support the hypothesis that consolidation has, in varying degrees, effected the level of support that three of the four areas of the South Lane School District have given budget proposals. An argument has

also been put forth that the duration of salience of the consolidation is limited--in this instance, approximately five budget elections. As noted earlier, this latter observation is tentatively offered and certainly subject to revision, especially as regards the five budget interval.

Since it has been hypothesized that objections to consolidation arise, in large part, from a sense that local control of education will be jeopardized by such a move, the findings of this research should be cast in these terms. One way of looking at the notion of local control is the comparative value of an individual vote in the pre- and post-consolidation districts. That is, assume that by joining a large collectivity, the value of a single vote is discounted by the proportion that the original unit is of the larger combined unit. Hence, in the original pre-consolidation district the value of a vote is arbitrarily given the value 1.0. After consolidation, with the addition of voters from other districts, the marginal value of that vote has been diminished. Clearly, a voter in a large initial district has his vote discounted very little by adding a small number of voters to the collectivity. In contrast, the voter in a small district has his vote discounted a great deal by joining a large collectivity. The value of a single vote as a proportion of its original value is reported for each unit of the South Lane School District in Table 6 for 1961 and 1972. The data presented in Table 6 demonstrate that the area of greatest

INSERT TABLE 6

support for consolidation, Cottage Grove, has had the value of its vote discounted the least of any unit in the new district. Delight Valley, the area showing the most opposition to budget measures since consolidation, has had the value of its vote discounted the most. It should be emphasized that the discount proportion is a very conservative estimate of actual discount for Delight Valley, Mt. View, and Latham because these units each represent the aggregation of several smaller districts which existed prior to consolidation.

That the loss of local control is a central concern of voters may be demonstrated in yet another way. If the sole basis for objection to consolidation were the possible increase in tax rate to support education that such a move might represent, one would expect the greatest opposition to come from those areas with a smaller proportion of possible beneficiaries of educational expenditure. That is, one would expect that areas with fewer school age children as a proportion of the total population would be more likely to oppose possible increases in tax cost o support education. Yet Latham and Mt. View, which demonstrate considerable opposition to budget requests, are the areas with the greatest proportion of school age children in their population.[20]

The research reported here has focused upon one possible unintended consequence of school district consolidation. As noted earlier, this research has been restricted to an investigation of the impact of consolidation in a district which has been characterized as a mixed model of consolidation--a district created through the unification of several small districts, many of which opposed consolidation. Due to the fact that this research has been based upon the experience of but one consolidated district and the data have been principally votes on budget measures, there are clearly limits to the confidence one can have in the generalizability of the findings. However, this research should serve to point out that consolidation, if it is to be a solution to some of the problems facing American education, is situationally relevant. When opposition to consolidation is considerable, it is probably a poor policy choice to force consolidation upon unwilling constituents, especially if the policy maker must return to the same constituents with budget measures to support education.

One obvious way to circumvent the problem examined here is the combining of forced consolidation with legislation to remove the responsibility of funding education from local constituents and placing it in the hands of the state. Lieberman strikes this theme when he states that

> Local control of education has clearly outlived its usefulness on the American scene. Practically, it must give way to a system of educational controls in which local communities play ceremonial rather than policy-making roles...[21]

In a similar view, Campbell, Cunningham, and McPhee state that,

> The problems of finance are so pervasive that it is imperative for school leaders, professionals, and laymen, to examine the most productive alliance for school support involving the nation, the state, and the local school district.
>
> For the past several decades the local school district has been linked closely with the concept of "community" and "community school." We argue for a reappraisal of the "community" notion on the grounds that past definitions of community are no longer adequate or indeed relevant. Whereas school districts in the past may have been able to define and serve essentially local and community needs, contemporary schools--rural as well as urban--must serve a broader spectrum of needs, not bounded by any particular geography.[22]

Clearly, there are substantial and compelling arguments which can be made for the merits of consolidation, whether it be voluntary or imposed. That one may avoid the repercussions of defeated budget measures by relying upon state rather than local sources of revenue, in the event of forced consolidation, does not confront a basic question which must be asked: what state or national needs or goals justify the contravention of constituent preference?

Hence, the wisdom of forced consolidation should be evaluated on the basis of at least two criteria--one practical, the other normative. If forced consolidation is advocated as a means to achieve fiscal solvency through the enlargement of the tax base or as a means to improve the quality and efficiency of the educational process, this goal may be jeopardized as a result of the hostility engendered in the unwilling constituent. The practical implication of this research for the policy maker is clear: either abandon this approach or combine it with legislation to have state government assume responsibility for the funding of education. That the second criteria by which forced consolidation should be judged is normative makes it no less real. As Martin notes, the local school district is the principal repository (along with the rural town)

of the ancient tradition of grass roots government." Forced consolidation leads to more than the lamentable passing of an anachronistic administrative unit; it represents a basic alteration in a form of self-government.

TABLE 1

Values of F for Walker-Lev Tests

Original Data

	Test 1	Test 2	Test 3
Delight Valley	26.1271*	16.5348*	18.0794*
Mt. View	3.7647	1.0378	12.4424*
Latham	1.2196	2.9800	1.7089
Cottage Grove	76.1796*	45.5400*	.0009

*significant at .01 level

TABLE 2

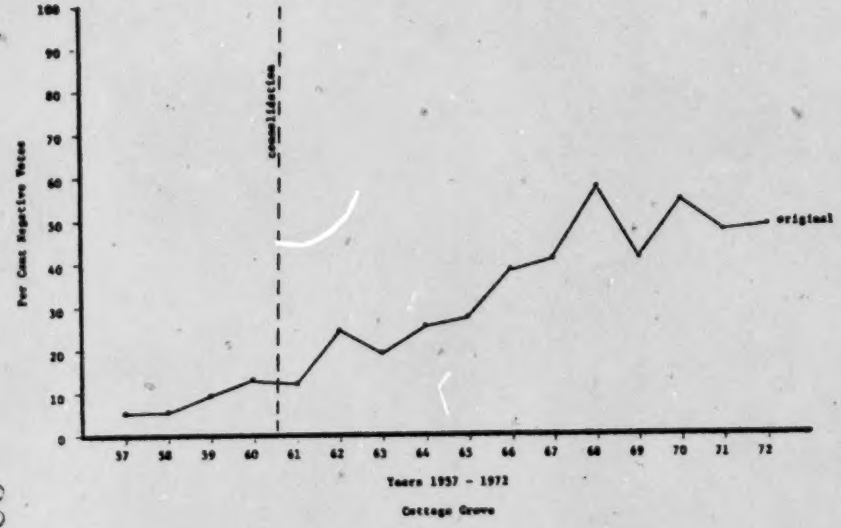
Value of Slopes and Intercepts

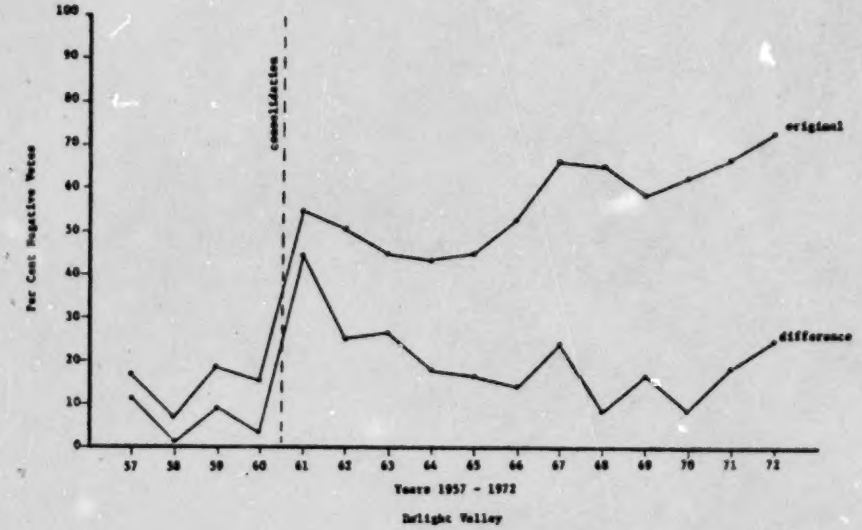
Original Data

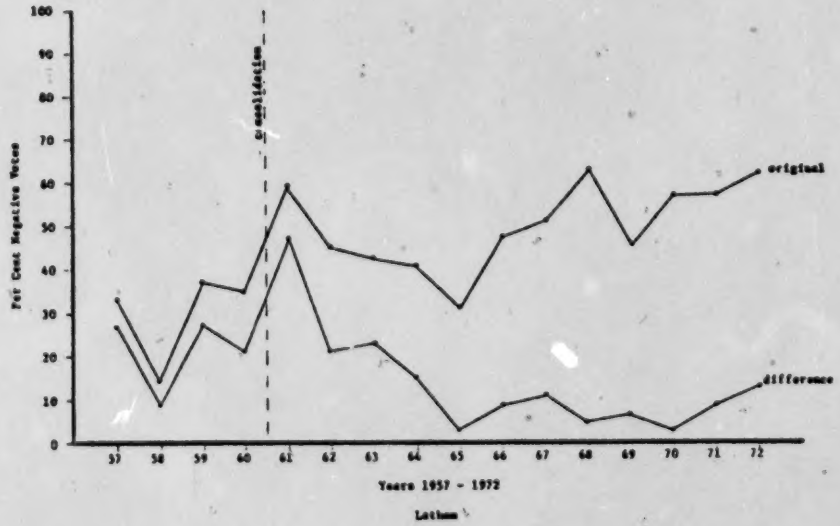
	Pre-Change		Post-Change	
	Beta	Alpha	Beta	Alpha
Delight Valley	.0088	.1260	.0221	.3379
Mt. View	-.0238	.3290	.0093	.4719
Latham	.0304	.2210	.0130	.3681
Cottage Grove	.0272	.0165	.0357	-.0107

FIGURE 1

Distributions of Both Original and Difference Data for Four Units of South Lane School District







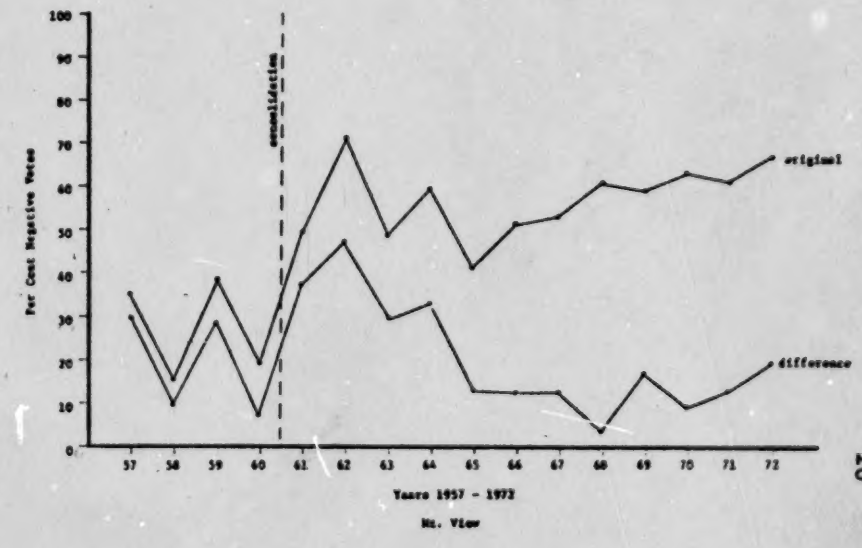
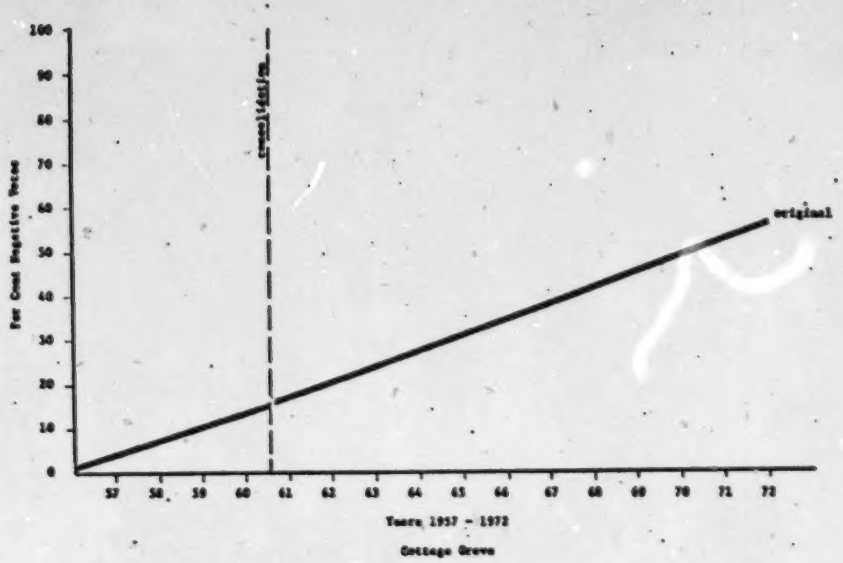
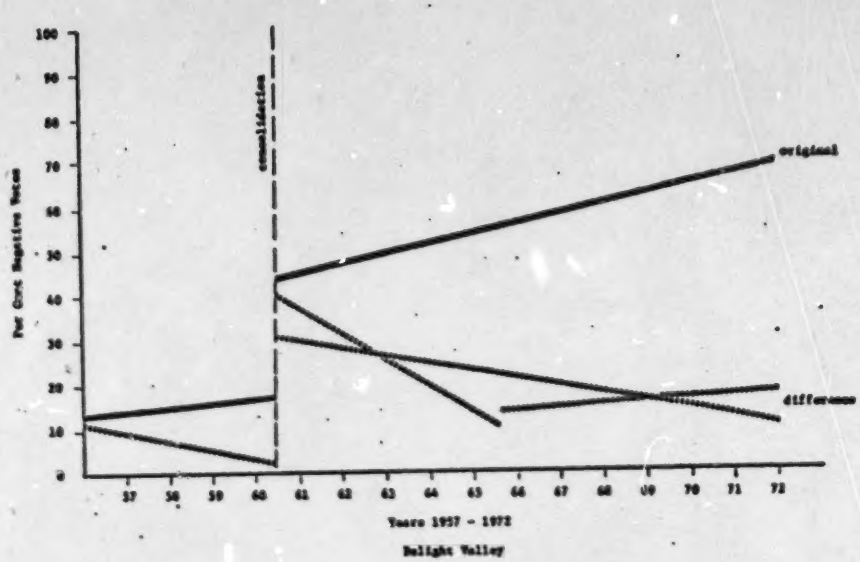
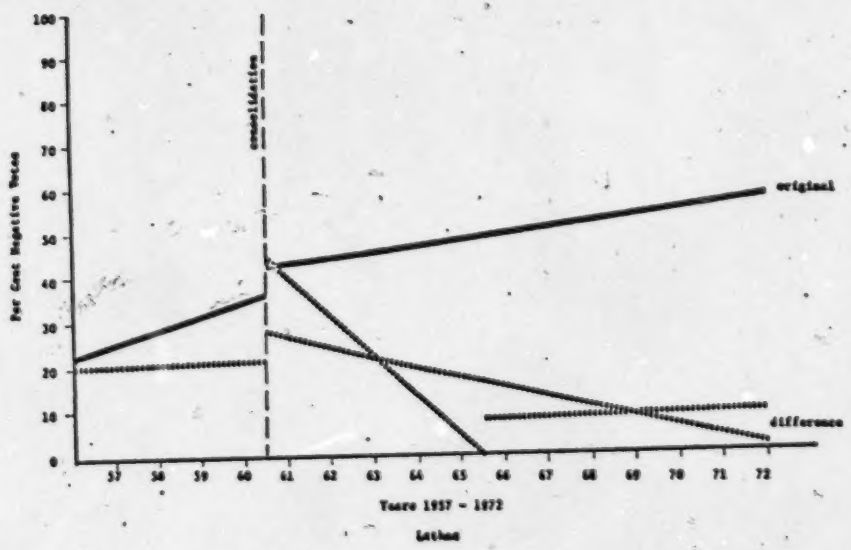


FIGURE 2

Slopes for Original, Two Period Difference, and Three Period Difference Data







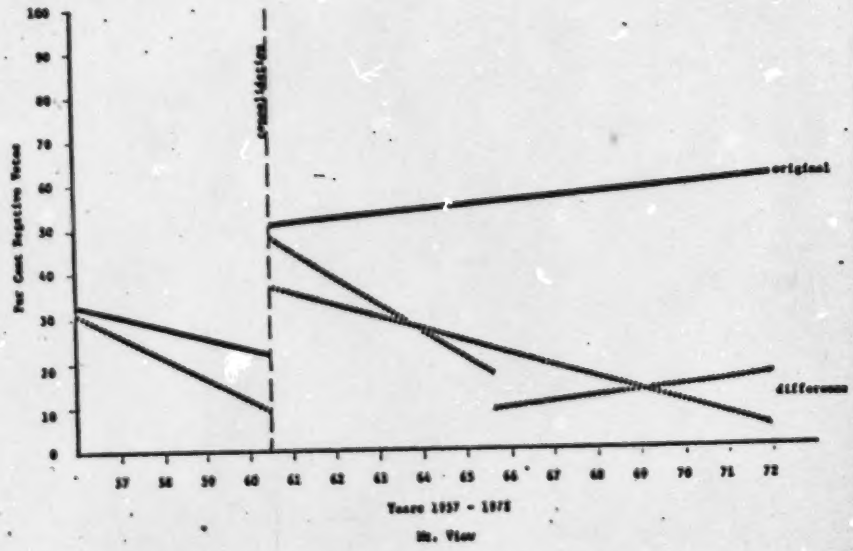


TABLE 3

Values of F for Walker-Lev Tests

Difference Data

	Test 1	Test 2	Test 3
Delight Valley	14.5852*	4.6410	69.0422*
Mt. View	27.9562*	10.0974*	5.7020**
Latham	16.4902*	7.0486**	4.0756

*significant at .01 level

**significant at .05 level

TABLE 4

Values of F for Walker-Lev Tests

First and Second of Three Periods--Difference Data

	Test 1	Test 2	Test 3
Delight Valley	49.8063*	7.9462**	4.2706
Mt. View	19.1502*	4.5232	3.3301
Latham	23.3320*	3.7514	1.6656

*significant at .01 level

**significant at .05 level

TABLE 5

Values of F for Walker-Lev Tests

Second and Third of Three Periods--Difference Data

	Test 1	Test 2	Test 3
Delight Valley	13.6129*	.4090	.3623
Mt. View	11.8119*	.2659	8.3371**
Latham	37.6051*	1.6703	.0002

*significant at .01 level

**significant at .05 level

TABLE 6

Proportional Value of a Single Vote

	Cottage Grove	Delight Valley	Mt. View	Latham
1961	.4634	.0883	.2670	.1812
1972	.5391	.0852	.1760	.1995

Footnotes

[1]The Book of States: 1972-1973 (Lexington: The Council of State Governments, 1972), p. 309.

[2]Ibid.

[3]Roscoe C. Martin, Government and the Suburban School (Syracuse: Syracuse University Press, 1962), p. 64.

[4]See, for example, Larry St. Louis and James F. McNamara, "Economies of Scale for a State System of Public School Districts," Mimeo, Center for the Advanced Study of Educational Administration, University of Oregon, 1972.

[5]See, for example, C. O. Fitzwater, School District Reorganization: Policies and Procedures (Washington: U. S. Government Printing Office, 1957).

[6]St. Louis and McNamara.

[7]Martin, Government and the Suburban School and Basil G. Zimmer and Amos H. Hawley, Metropolitan Area Schools: Resistance to District Reorganization (Beverly Hills: Sage Publications, Inc., 1968).

[8]Albert O. Hirschman, Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations, and States (Cambridge, Mass.: Harvard University Press, 1970).

[9]Non-voters are considered "loyal" following Chilton R. Bush and Paul J. Deutschman's finding ("The Inter-Relationships of Attitudes Toward Schools and Voting Behavior in a School Bond Election," Mimeo, Department of Communication and Journalism, Stanford University, 1955) that, in California, high voter turnout is associated with high negative voting.

[10]Leo O. Gurber and Newton Edwards, The Law Relating to the Creation, Alteration, and Dissolution of School Districts (Danville, Ill.: Interstate Printers and Publishers, 1962) cited by Arthur E. Wise, Rich Schools, Poor Schools (Chicago and London: The University of Chicago Press, 1968).

[11]Fitzwater, p. 4.

[12]The Book of States, p. 312.

[13]Donald T. Campbell, "From Description to Experimentation: Interpreting Trends as Quasi-Experiments." In Chester Harris (ed.), Problems in Measuring Change (Madison: University of Wisconsin Press, 1963), p. 220.

[14]The data for this study have been collected from two sources, the minutes of South Lane School Board meetings and the Cottage Grove Sentinel.

[15]Kenneth A. Simon and W. Vance Grant, Digest of Educational Statistics: 1971 (Washington: U. S. Government Printing Office, 1972), p. 30.

[16]Letter from Attorney General Robert Thornton to South Lane School District, October 24, 1960.

[17]Helen M. Walker and Joseph Lev, Statistical Inference (New York: Holt, Rinehart and Winston, 1953), pp. 390-5.

[18]Donald T. Campbell and Julian C. Stanley, Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally and Co., 1966), p. 40.

[19]Michael Boss, "The Supply and Tax-Cost of Education and the Vote: An Empirical Test of a Political-Economic Theory of Finance Elections," paper prepared for delivery at the 1973 Annual Meeting of the American Political Science Association, p. 7.

[20]U. S. Bureau of the Census, 1970 Census of Population and Housing (Washington D.C.: U. S. Department of Commerce, 1971).

[21]Myron Lieberman, The Future of Public Education (Chicago: University of Chicago Press, 1960), p. 34.

[22]Ronald Campbell, Luvern Cunningham, and Roderick McPhee, The Organization and Control of American Schools (Columbus: Charles E. Merrill Books, Inc., 1965), p. 108.

FIGURE 2A

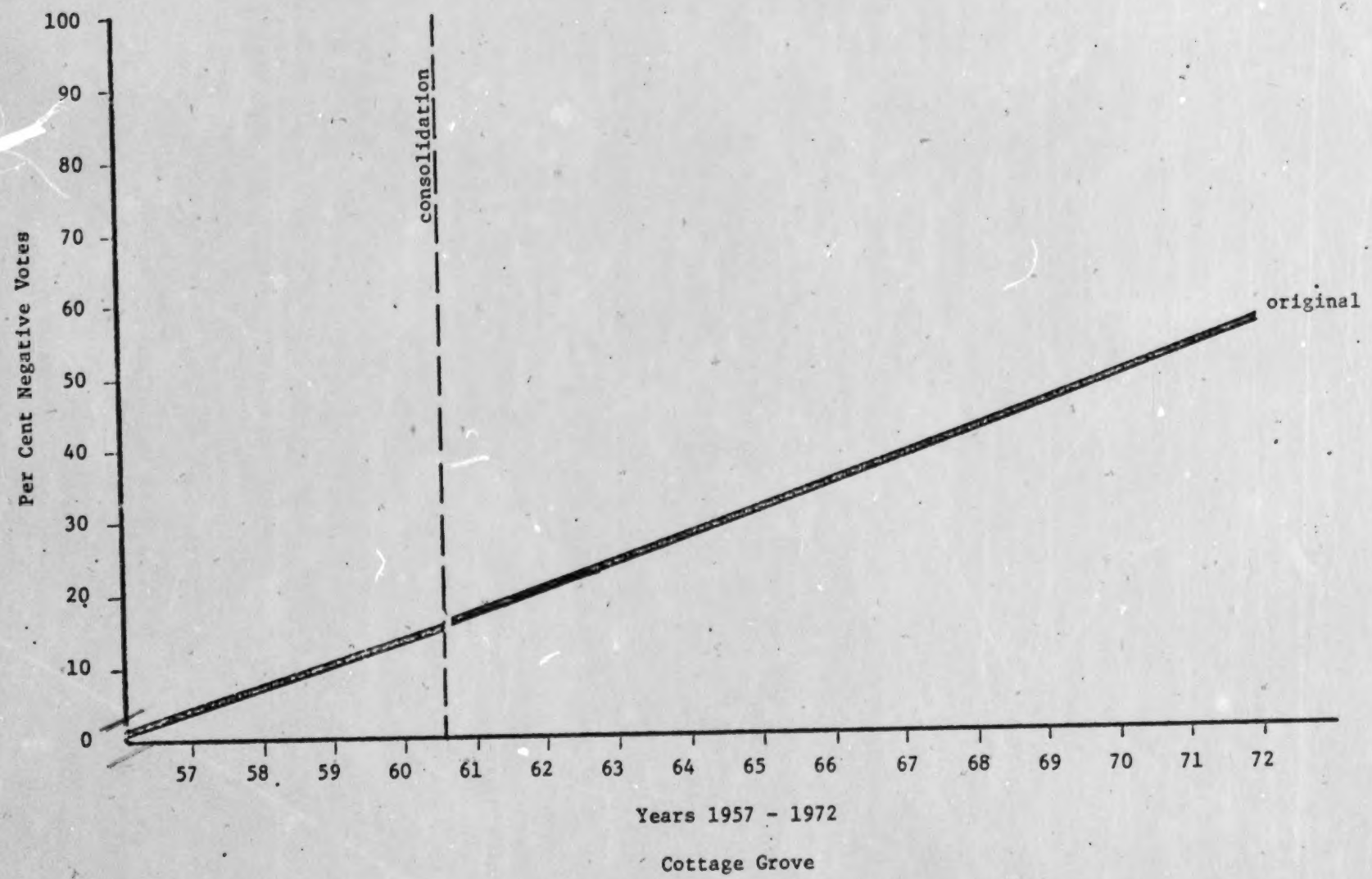
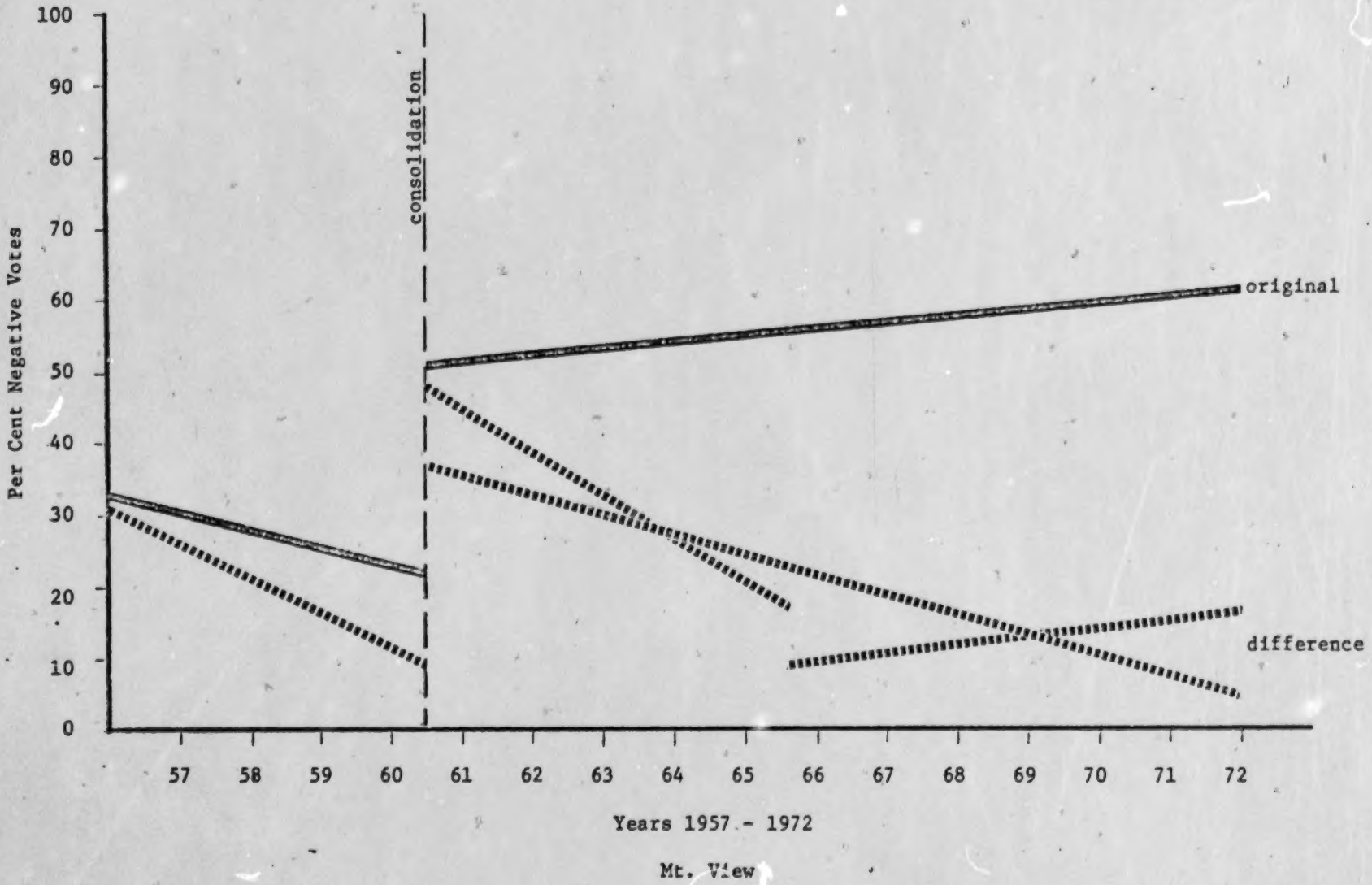
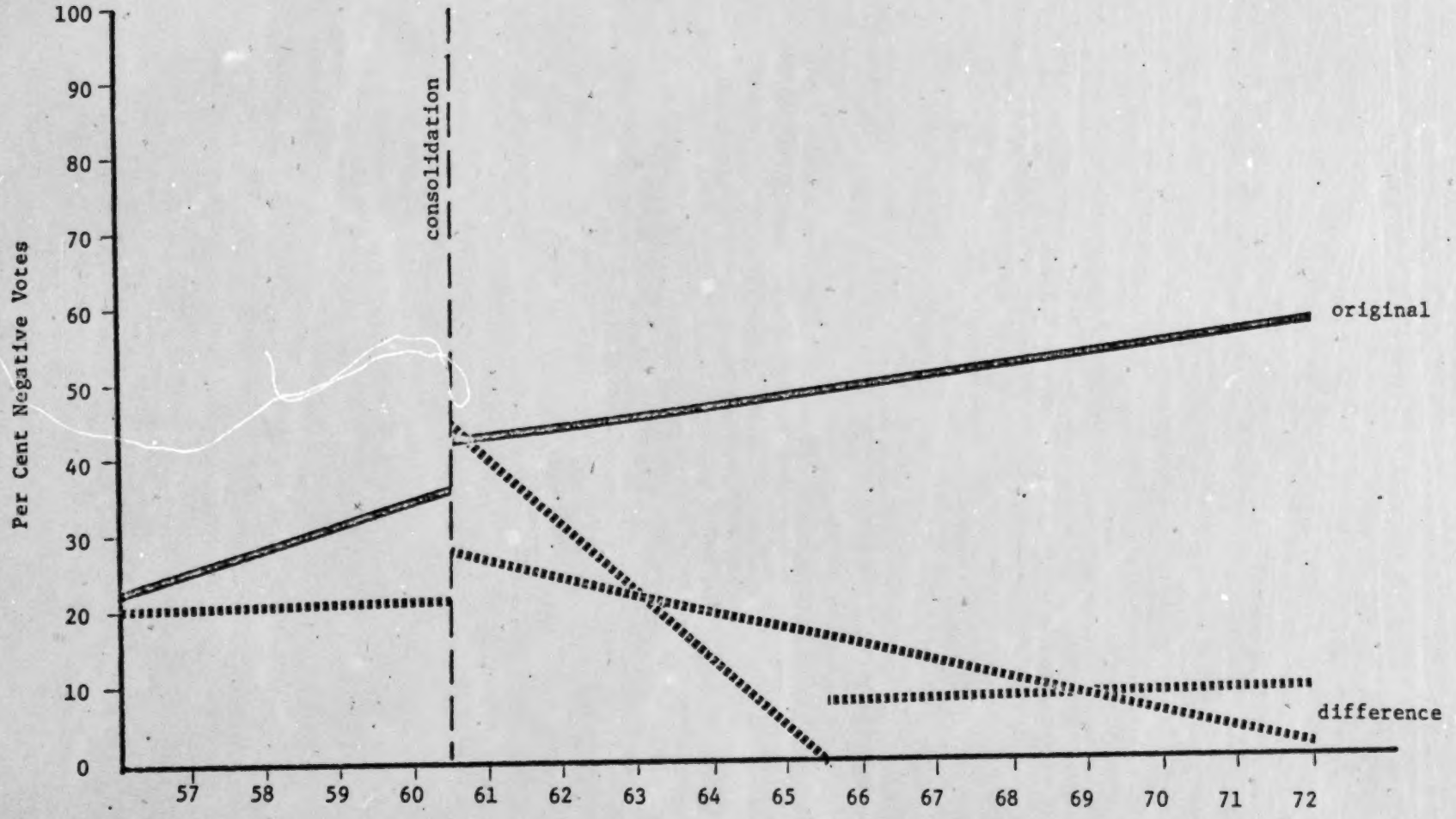

100
90
80
70
60
50
40
30
20
10
0
Per Cent Negative Votes
consolidation
original
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
Years 1957 - 1972
Cottage Grove

FIGURE 28



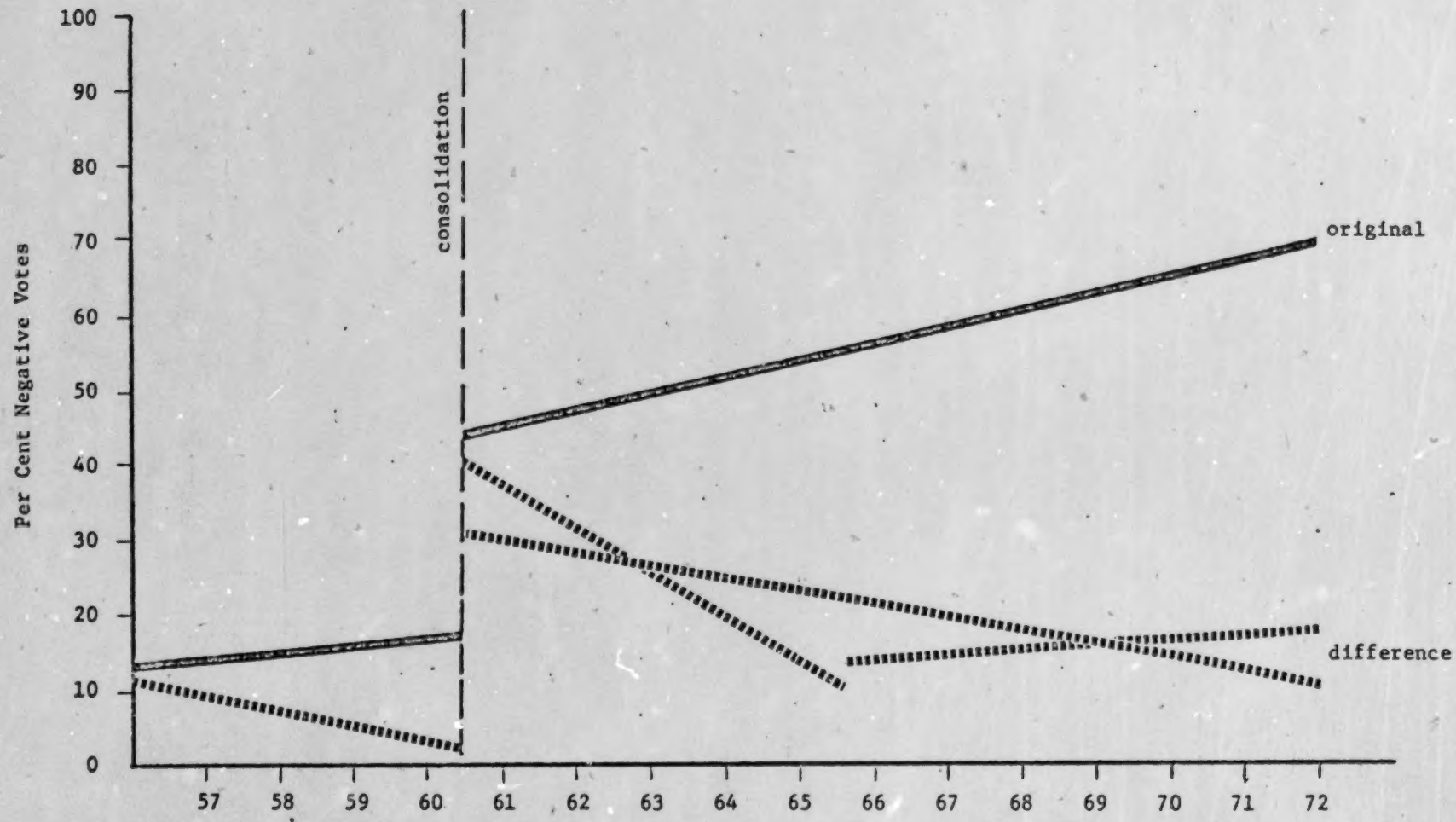
Mt. View

FIGURE 2C



Latham

FIGURE 2D



Delight Valley

TABLE 7

Value of Slopes and Intercepts

Original Data

	Pre-Change		Post-Change	
	Beta	Alpha	Beta	Alpha
Cottage Grove	.0272	.0165	.0357	-.0107
Mt. View	-.0238	.3290	.0093	.4719
Latham	.0304	.2210	.0130	.3681
Delight Valley	.0088	.1260	.0221	.3379

TABLE 8

Value of Slopes and Intercepts

Difference Data

	Pre-Change		Post-Change	
	Beta	Alpha	Beta	Alpha
Mt. View	-.0510	.3125	-.0264	.4827
Latham	.0032	.2045	-.0227	.3788
Delight Valley	-.0184	.1095	-.0136	.3486

TABLE 9

Values of Slopes and Intercepts

Difference Data in Three Periods

	Period 1		Period 2		Period 3	
	Beta	Alpha	Beta	Alpha	Beta	Alpha
Mt. View	-.0586	.3125	-.0624	.7578	.0111	-.0205
Latham	.0032	.2045	-.0919	.8633	.0022	.0545
Delight Valley	-.0184	.1095	-.0579	.6639	.0080	.0640